

# Canada's cash flow dance: Movement 1 of 8

By Warren Lovely

In less than a week, Canada's domestic bond market will see its first set of outsized cash flows and index adjustments. We're talking about March 1<sup>st</sup>, one of eight major coupon/roll days on the calendar (Chart 1), the result of heavily clustered government bond maturities.

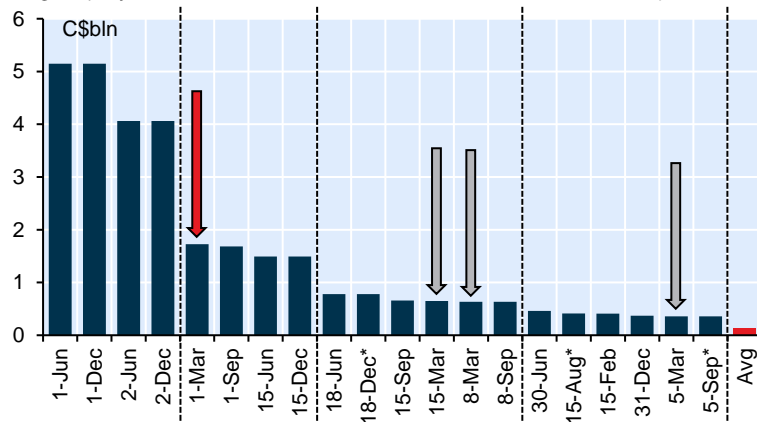
While March 1<sup>st</sup> doesn't quite compare to June 1<sup>st</sup>/2<sup>nd</sup> (or the six-month echo effect on December 1<sup>st</sup>/2<sup>nd</sup>), it's nonetheless taken on greater absolute and relative importance. We estimate C\$1.72 billion of FTSE Canada Universe Bond Index cash flows for March 1<sup>st</sup>, with the actual amount paid on Monday closer to C\$1.9 billion when you add in the final two days of February (which land on the weekend). This year's March 1<sup>st</sup> cash dump is largely on par with what we saw in 2020 but clearly elevated vs. what we routinely saw in the 2010s. Lined up against a "normal" day, the cash to be doled out on March 1<sup>st</sup> is a dozen times the estimate average daily Universe interest payment for 2021. The relative importance of March 1<sup>st</sup> cash compared to June 1<sup>st</sup> has also steadily increased, reaching fully one-third in 2021 (Chart 2).

Two hefty Government of Canada bonds roll on the 1<sup>st</sup>, altering Index composition. One *rolls out* of the Universe (CAN 0.5% 1-Mar-2022 with C\$12.2 bln o/s), while another bond *rolls over* from Mid to Short (CAN 0.25% 1-Mar-2026 with C\$16.5 bln o/s). Simulation analysis suggests that the modified duration of the Short and Mid buckets will extend by 0.068 and 0.064 years respectively, with little impact on the Long sub-index (given no bonds rolling down into Mid). Since much of the roll action is in GoC bonds, the duration impacts are heavily concentrated in the Federal sector (Chart 3 & Table on page 2). As for term weights, the Mid sub-index (6-10 years) looks set to fall 0.7%-pts on March 1<sup>st</sup>, with the weight of the Short sub-index (1-5 years) rising an estimated 0.45%-pts and the Long (10+ years) weight edging up 0.25%-pts.

All else equal, Canada's outsized March 1<sup>st</sup> cash flows have enabled outperformance vs. U.S. Treasuries... at least in the past few "normal" years (Charts 4-5, page 2). Last year was a unique time of course. Canadas underperformed Treasuries leading up to March 1<sup>st</sup>, as global bond yields crashed lower on COVID fears, but recouped much ground after the cash flowed. There will be a few more semi-important cash flow days to dance around later this March (the 5<sup>th</sup>, 8<sup>th</sup> and 15<sup>th</sup>, all good business days). Think of all this as practice for the really sweeping movements that will take place during the first two days of June—cash flows big enough that investors should consider positioning weeks in advance.

**Chart 1: The key dates to really focus on (March has a few)**

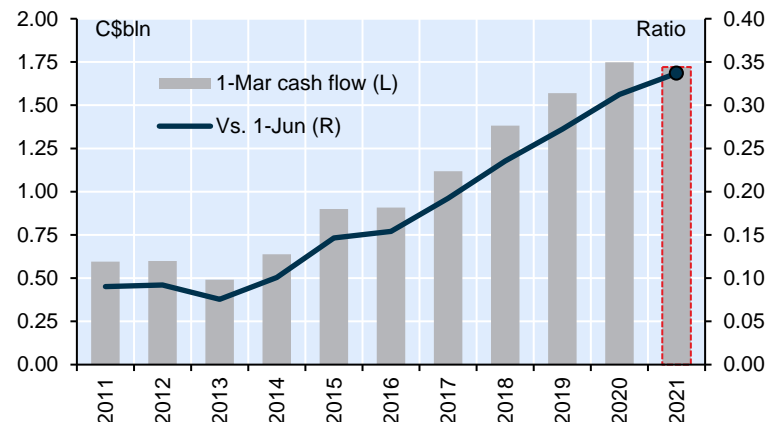
Largest projected FTSE Canada Universe Bond Index cash flow days: 2021



Source: NBF, FTSE Russell | Note: Asterisk (\*) denotes a day that falls on weekend in 2021

**Chart 2: March 1<sup>st</sup> cash flows over time & relative to June 1<sup>st</sup>**

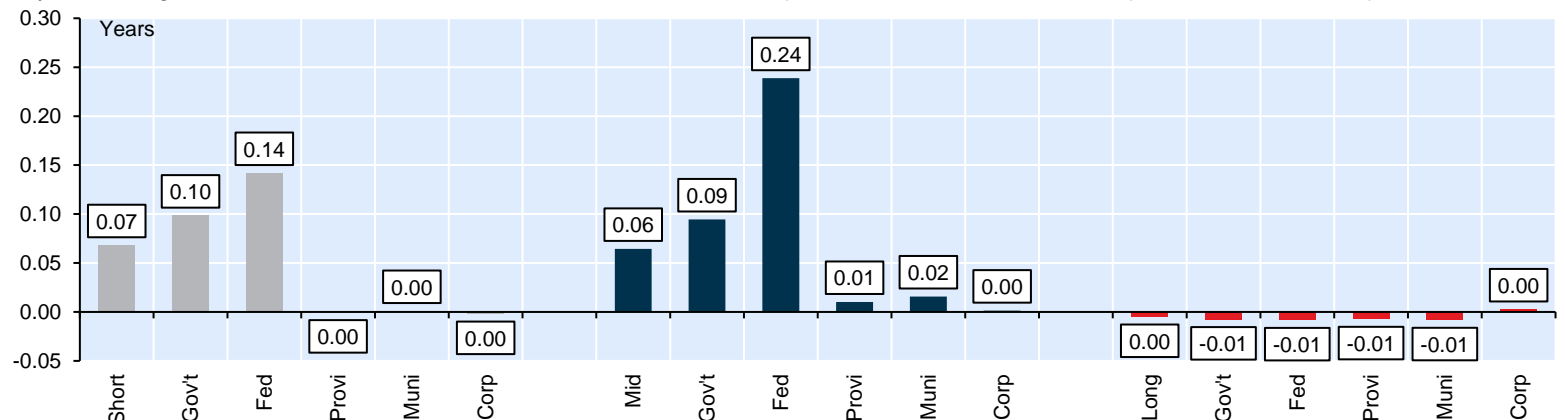
FTSE Canada Universe Bond Index March 1<sup>st</sup> cash flows



Source: NBF, FTSE Russell | Note: Estimated cash flows as at 19-Feb of each year

**Chart 3: The March 1<sup>st</sup> duration impact is concentrated in 'Short' and 'Mid' buckets, with 'Federal' sector the real focus**

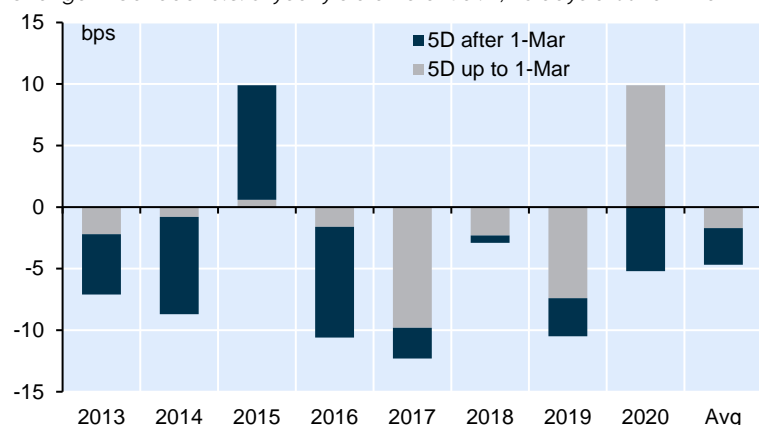
Projected change in modified duration of FTSE Canada Fixed Income Indexes by term & sector: 26-Feb-2021 (Friday) to 1-Mar-2021 (Monday)



Source: NBF, FTSE Russell | Note: Based on simulations using 19-Feb-2021 closing values; assumes no shift in yield curve

**Chart 4: Plotting past March 1<sup>st</sup> effects on Can-US rates**

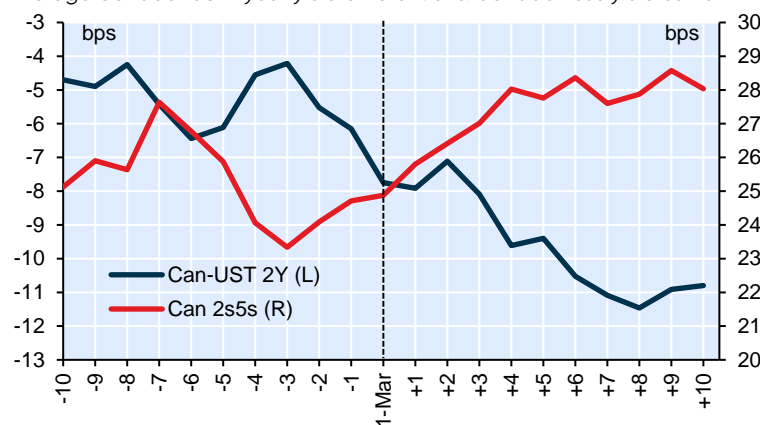
Change in Canada-U.S. 5-year yield differential: +/-5 days around 1-Mar



Source: NBF, Bloomberg | Note: Based on observed changes; does not control for underlying market direction

**Chart 5: On avg, GoC outperformance & steeper curves**

Average Canada-US 2-year yield differential & Canada 2s5s yield curve



Source: NBF, Bloomberg | Note: Based on 8-year average from 2013 to 2020; post 1-Mar steepening tendency more pronounced in 2s10s & 2s30s

Note: Beyond Charts 4-5, there are any number of additional comparisons one could make when exploring the March 1<sup>st</sup> effect on Canada rates, either outright yield dynamics, curves, butterflies or vs. U.S. Treasuries (either a single tenor or boxed). Contact NBF if you'd like to explore further.

**Table: Simulated changes in Index weights & modified duration by term/sector coming Monday, March 1<sup>st</sup>**

FTSE Canada Fixed Income Index simulation analysis | Simulation timeframe: 26-Feb-2021 (Friday) to 1-Mar-2021 (Monday)

|                          | Index weight simulation (%) |               | Modified duration simulation |               | Duration change analysis: 26-Feb to 1-Mar |               |               |               |
|--------------------------|-----------------------------|---------------|------------------------------|---------------|---|---------------|---------------|---------------|
|                          | 26-Feb                      | 1-Mar         | 26-Feb                       | 1-Mar         | Coupon effect                             | Roll effect   | Total change  |               |
| <b>Short (1-5 years)</b> | <b>Short Government</b>     | <b>29.17</b>  | <b>29.55</b>                 | <b>2.701</b>  | <b>2.799</b>                              | <b>-0.003</b> | <b>0.102</b>  | <b>0.098</b>  |
|                          | Short Federal               | 20.26         | 20.57                        | 2.634         | 2.776                                     | -0.004        | 0.146         | 0.142         |
|                          | Short Provincial            | 8.44          | 8.50                         | 2.839         | 2.838                                     | -0.002        | 0.002         | 0.000         |
|                          | Short Municipal             | 0.47          | 0.47                         | 3.127         | 3.128                                     | 0.001         | 0.000         | 0.001         |
|                          | <b>Short Corporate</b>      | <b>12.69</b>  | <b>12.76</b>                 | <b>2.750</b>  | <b>2.748</b>                              | <b>-0.007</b> | <b>0.006</b>  | <b>-0.002</b> |
|                          | Short Financial             | 8.09          | 8.12                         | 2.679         | 2.678                                     | -0.008        | 0.007         | -0.001        |
| <b>Short (Overall)</b>   | <b>41.85</b>                | <b>42.30</b>  | <b>2.716</b>                 | <b>2.784</b>  | <b>-0.004</b>                             | <b>0.073</b>  | <b>0.068</b>  |               |
| <b>Mid (6-10 years)</b>  | <b>Mid Government</b>       | <b>19.09</b>  | <b>18.36</b>                 | <b>6.960</b>  | <b>7.054</b>                              | <b>0.001</b>  | <b>0.093</b>  | <b>0.094</b>  |
|                          | Mid Federal                 | 8.57          | 7.79                         | 7.253         | 7.492                                     | -0.007        | 0.246         | 0.239         |
|                          | Mid Provincial              | 9.89          | 9.94                         | 6.723         | 6.733                                     | 0.007         | 0.003         | 0.010         |
|                          | Mid Municipal               | 0.63          | 0.63                         | 6.696         | 6.712                                     | 0.016         | 0.000         | 0.016         |
|                          | <b>Mid Corporate</b>        | <b>6.35</b>   | <b>6.38</b>                  | <b>6.233</b>  | <b>6.234</b>                              | <b>-0.001</b> | <b>0.002</b>  | <b>0.001</b>  |
|                          | Mid Financial               | 1.40          | 1.41                         | 6.067         | 6.070                                     | 0.004         | 0.000         | 0.004         |
| <b>Mid (Overall)</b>     | <b>25.44</b>                | <b>24.74</b>  | <b>6.778</b>                 | <b>6.843</b>  | <b>0.001</b>                              | <b>0.064</b>  | <b>0.064</b>  |               |
| <b>Long (10+ years)</b>  | <b>Long Government</b>      | <b>25.02</b>  | <b>25.21</b>                 | <b>16.187</b> | <b>16.180</b>                             | <b>-0.007</b> | <b>0.000</b>  | <b>-0.007</b> |
|                          | Long Federal                | 5.20          | 5.24                         | 17.224        | 17.215                                    | -0.008        | 0.000         | -0.008        |
|                          | Long Provincial             | 18.84         | 18.99                        | 15.983        | 15.976                                    | -0.007        | 0.000         | -0.007        |
|                          | Long Municipal              | 0.98          | 0.99                         | 14.618        | 14.610                                    | -0.008        | 0.000         | -0.008        |
|                          | <b>Long Corporate</b>       | <b>7.69</b>   | <b>7.74</b>                  | <b>13.575</b> | <b>13.578</b>                             | <b>0.003</b>  | <b>0.000</b>  | <b>0.003</b>  |
|                          | Long Financial              | 0.50          | 0.51                         | 12.174        | 12.165                                    | -0.008        | 0.000         | -0.008        |
| <b>Long (Overall)</b>    | <b>32.71</b>                | <b>32.95</b>  | <b>15.573</b>                | <b>15.569</b> | <b>-0.005</b>                             | <b>0.000</b>  | <b>-0.005</b> |               |
| <b>Universe</b>          | <b>100.00</b>               | <b>100.00</b> | <b>7.955</b>                 | <b>8.001</b>  | <b>0.000</b>                              | <b>0.047</b>  | <b>0.047</b>  |               |

Source: NBF, FTSE Russell | Note: Based on simulations using 19-Feb-2021 closing values; assumes no shift in yield curve



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